

**CLAIMS**

1. Aqueous mixture comprising
- 5           A)   at least one alkoxylate of the formula (I)  
               $R^1-O-(CH_2-CHR^2-O)_n-CH_2-CH_2-OH$  or its phosphoric ester,  
              wherein  
               $R^1$     is a linear or branched  $C_6-C_{19}$ -alkyl radical,  
               $R^2$     is hydrogen, methyl or ethyl, and  
10           n     has an average value of 3 to 11;
- B)   at least one hydroxy carboxylic acid in simple form or as a polyoligo  
                  hydroxy carboxylic acid or salts thereof or a polyacrylate or a  
                  phosphonate or salts thereof or any mixtures therefrom,
- C)   an aromatic sulphonation or sulphination or sulphation product or salts  
15           thereof,
- D)   an alkaline earth metal salt,  
              and also optionally further additives.
- 20   2.   Mixture according to Claim 1 wherein
- $R^1$     is a linear or branched  $C_8-C_{15}$ -alkyl radical,  
               $R^2$     is hydrogen or methyl,  
              n     has an average value of 5 to 9;
- B     is citric acid or sodium gluconate or an  $\alpha$ -hydroxy polyacrylate or  
25           ATMP, HEDP, DTPMPA, EDTMPA or PBTC or salts of these  
                  phosphonates or any mixture therefrom,
- C     is cumenesulphonic acid or naphthalenesulphonic acid or an alkali  
                  metal/ammonium salts thereof, and
- D     is magnesium chloride, magnesium sulphate, calcium chloride or  
30           calcium sulphate.

3. Mixture according to Claim 1 or 2 wherein
- R<sup>1</sup> is a linear or branched C<sub>12</sub>-C<sub>15</sub>-alkyl radical,
  - R<sup>2</sup> is hydrogen or methyl,
  - n has an average value of 6 or 7; and
  - 5 B is citric acid or sodium gluconate or DTPMPA or any mixture therefrom,
  - C is cumenesulphonic acid or an alkali metal/ammonium salt thereof, and
  - 10 D is magnesium chloride or magnesium sulphate.
4. Mixture according to Claim 3 wherein
- B is a mixture of citric acid and sodium gluconate,
  - C is sodium cumenesulphonate, and
  - 15 D is magnesium chloride.
5. Mixture according to Claim 1 comprising two different alkoxylates of the formula (I),
- A1) wherein
  - 20 R<sup>1</sup> is a branched C<sub>6</sub>-C<sub>14</sub>-alkyl radical,
  - R<sup>2</sup> is hydrogen, methyl or ethyl, and
  - n has an average value of 3 to 11;
  - and
  - A2) wherein
  - 25 R<sup>1</sup> is a linear or branched C<sub>8</sub>-C<sub>19</sub>-alkyl radical,
  - R<sup>2</sup> is hydrogen, methyl or ethyl, and
  - n has an average value of 3 to 10,
  - and wherein B) to D) are defined as mentioned.
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## 6. Mixture according to Claim 5 wherein in

- A1)  $R^1$  is a branched  $C_8$ - $C_{12}$ -alkyl radical,  
 $R^2$  is hydrogen or methyl, and  
 $n$  has an average value of 5 to 9;

5 and in

- A2)  $R^1$  is a linear or branched  $C_{10}$ - $C_{17}$ -alkyl radical,  
 $R^2$  is hydrogen or methyl,  
 $n$  has an average value of 4 to 8,

and

10 B is citric acid or sodium gluconate or an  $\alpha$ -hydroxy polyacrylate or  
ATMP, HEDP, DTPMPA, EDTMPA or PBTC or salts of these  
phosphonates or any mixture therefrom,

C is cumenesulphonic acid or naphthalenesulphonic acid or an alkali  
metal/ammonium salts thereof, and

15 D is magnesium chloride, magnesium sulphate, calcium chloride or  
calcium sulphate.

## 7. Mixture according to Claim 5 or 6 wherein

- 20 A1)  $R^1$  is a branched  $C_{10}$ -alkyl radical,  
 $R^2$  is hydrogen, and  
 $n$  has an average value of 7;

and in

- 25 A2)  $R^1$  is a linear or branched  $C_{12}$ - $C_{15}$ -alkyl radical,  
 $R^2$  is hydrogen,  
 $n$  has an average value of 6,

and

B is citric acid or sodium gluconate or DTPMPA or any mixture  
therefrom,

30 C is cumenesulphonic acid or an alkali metal/ammonium salt thereof,  
and

D is magnesium chloride or magnesium sulphate.

8. Mixture according to Claim 5 or 6 wherein
- 5           A1) is an alkoxylate of a linear or branched C<sub>10</sub>-alcohol or mixtures thereof having on average 8 ethylene oxide units and 1 propylene oxide unit,
- and
- A2) is an alkoxylate of a linear or branched C<sub>12</sub>-C<sub>15</sub>-alcohol having on average 7 ethylene oxide units,
- and
- 10          B    is a mixture of citric acid and sodium gluconate,
- C    is sodium cumenesulphonate, and
- D    is magnesium chloride.
- 15    9.    Mixture according to Claim 7 wherein
- B    is a mixture of citric acid and sodium gluconate,
- C    is sodium cumenesulphonate, and
- D    is magnesium chloride.
- 20    10.   Mixture according to any one of Claims 1 to 9 wherein said component A or the sum total of A1 and A2 has a concentration of 1% to 40% by weight, said component B has a concentration of 1% to 20% by weight, said components C and D each have a concentration of 0.1% to 10% by weight, based on the entire aqueous mixture.
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11.   Mixture according to any one of Claims 1 to 10 wherein the concentration of component A or of the sum total of A1 and A2 is 7% to 20% by weight, of component B is 2% to 10% by weight and of components C and D is in each case 0.4% to 5% by weight.
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12.   Mixture according to any one of Claims 1 to 11 wherein the concentration of component A or of the sum total of A1 and A2 is 14% to 20% by weight, of component B is 3% to 8% by weight and of components C and D is in each case

0.6% to 2.5% by weight.

13. Mixture according to any one of Claims 1 to 12 wherein foam-suppressing components and defoamers are used as additional additives.
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14. Use of a mixture according to any one of Claims 1 to 13 to pretreat textiles.
15. Process for pretreating textiles which comprises steps of
- setting a liquor ratio of 5:1 to 20:1, preferably 8:1 to 10:1,
  - 10 - heating the treatment bath to 25-60°C, preferably to 30-50°C,
  - adding 0.5-8 ml/l, preferably 1-4 ml/l of a mixture in accordance with Claim 1,
  - adding 1-20 ml/l, preferably 2-3 ml/l of hydrogen peroxide 50%,
  - adding 1-10 ml/l, preferably 1.5-3.5 ml/l of aqueous sodium hydroxide
  - 15 solution 50%,
  - further heating the treatment bath to 8-130°C, preferably to 95-100°C,
  - holding this temperature for 15-90 minutes, preferably for 40-50 minutes,
  - cooling and dropping the bath,
  - optionally hot rinsing at 50-100°C, preferably at 70-90°C,
  - 20 - optionally cold rinsing and dropping the bath.
16. Process for cellulosic or cellulosic-synthetic fibre blend pretreatment comprising steps of
- providing a vessel;
  - 25 - providing a cellulosic or cellulosic-synthetic fibre blend substrate;
  - providing a water bath;
  - adding an aqueous mixture according to Claim 1,
  - optionally adding an active amount of an activating compound selected from the group consisting of salts of organic acids, organic amine
  - 30 derivatives, transition metal salts or transition metal complexes,
  - adding an active amount of caustic soda to obtain a starting bath having an alkaline pH;
  - adding an active amount of hydrogen peroxide;

- heating the water bath to a temperature of 80-130°C during a time period;
- optionally cold or warm rinsing,
- optionally adding catalase.

5 17. Process according to Claim 16, wherein

- the aqueous mixture is added in a concentration of 0.5-4 g/l.